

button) results in importing the payment data. Selecting the Import Asset Milestone button 128 results in importing the asset milestone data. Selecting the "Back" button 130 results in returning processing to the main interface screen (e.g., the screen shown in Figure 10).

Remarks

Submitted herewith is a Request for Approval of Formal Drawings and Drawing Changes. Reference labels 10-130 have been inserted into the drawings. Additionally, Figure 9 has been expanded into multiple drawing sheets to meet font size requirements. Specifically, originally filed Figure 9 is now illustrated in Figures 9A, 9B, 9C, 9D, 9E, and 9F.

In anticipation of the approval of the drawing change, Applicants are submitting formal drawings incorporating the above-noted changes. No new matter has been added.

The specification has been amended in accordance with the inserted labels and new figures. Submitted herewith is a Submission of Marked Up Paragraphs.

Favorable action is respectfully solicited. If any fee is due, please charge Deposit Account No. 01-2384.

Respectfully Submitted,



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Keyes et al. :
Serial No.: 10/035,968 : Art Unit: 2164
Filed: December 31, 2001 : Examiner:
For: METHODS AND SYSTEMS :
FOR ASSESSING LOAN :
PORTFOLIOS :

SUBMISSION OF MARKED UP PARAGRAPHS

Commissioner for Patents
Washington, D.C. 20231

Submitted herewith are marked up paragraphs in accordance with 37 C.F.R.
1.121(b)(1)(ii).

IN THE SPECIFICATION

On page 3, please delete paragraph [0017] and replace with the following paragraph:

[0017] Figure [9 illustrates a] 9A is a first portion of the illustrated transition inventory display. Figure 9B is a second portion of the illustrated transition inventory display. Figure 9C is a third portion of the illustrated transition inventory display. Figure 9D is a fourth portion of the illustrated transition inventory display. Figure 9E is a fifth portion of the illustrated transition inventory display. Figure 9F is a sixth portion of the illustrated transition inventory display;

On pages 5-10, please delete paragraphs [0025] – [0047] and replace with the following paragraphs:

[0025] Referring now specifically to the drawings, Figure 1 is a block diagram 10 illustrating an example embodiment of an information system for variance tracking. A system server 12 provides users with access to operational information for asset management 14, recorded into a data warehouse 16 in an ongoing basis from other applications residing on a network, e.g., a local area network. The data warehouse 16, in an example embodiment, is an Oracle database, commercially available from Oracle Corporation, Redwood Shores, California.

[0026] The information stored in data warehouse 16 includes, for example:

Borrower Contact Information,

Contact Action / Results History,

Borrower Characteristics (e.g., size of outstanding balance, nature of collateral security, lien information, historical payment performance, litigation status, and underwritten valuation), and

Asset Management Milestones (with corresponding dates and expected “recovery” amounts where appropriate*): Not Contacted, In Negotiation, Scheduled for Approval, Approved*, Approved Delinquent, Closed*, Closed Delinquent, Paid-In-Full, and Foreclosed*.

[0027] Portfolio administrators 18 construct periodic (e.g., annual, quarterly) business plans 20 for debtor groups (e.g., individuals, borrower alliances, and portfolio segments). The business plans 20 include the expected monthly cash payments made by the debtor groups. The time horizon (beginning month to ending month) of the business plans 20 for each debtor group is the same (e.g., January 2001 to December 2005).

[0028] Portfolio administrators 18 choose among various available borrower, loan, and collateral characteristics pertaining to the debtor group. These characteristics are used for subsequent “data mining” purposes (e.g., prioritizing debtor groups, stratified by their

common group characteristics, according to each stratum's contribution to an overall variance calculation as described below).

[0029] Once debtor groups have progressed through asset milestone phases and achieve a negotiated settlement (i.e., are "closed"), loan servicing 22 issues notification of contractual cash payments. As payments are received, they are posted in a cash management system 24, from which general ledger 26 accounting entries are made. For non-performing loans, these contractual cash flows usually sum to considerably less than the balance owed to the original credit issuer. A purchaser of non-performing loan portfolios (from the original credit issuer or subsequent purchaser) aims to collect more than his/her purchase price for each debtor group in the portfolio.

[0030] The systems and methods described herein facilitate determining how well the periodic business plans are borne out in reality and in addition, allow for the identification of portfolio segments (strata) which are the chief contributors to slippages (or accelerations) in actual payments made, as compared to the business plans (or contractual cash flows). These functions are sometimes referred to herein as variance tracking. Such functions are performed in the system illustrated in Figure 1 by the variance tracker database 28 (illustrated in Figure 1 and sometimes referred to herein as the variance tracker DataMart) and the variance tracker client 30. More specifically, data from data warehouse 16 and from the business plans 20 is stored in database 28, and variance tracker client 30 is an application program executed by the personal computer to perform the functions described above (i.e., variance tracking).

[0031] More particularly, and referring to Figure 2, variance tracker database 28, i.e., DataMart, is created by performing certain tasks on an annual/quarterly and monthly basis. For example, business plans 20 are created on an annual or quarterly basis. The DataMart 28 is data stored on the personal computer memory utilizing the data management system 12 (e.g., the Access data management system), as described above. The plans 20 are comprised of expected monthly cash flows for each debtor group, and are uploaded to

variance tracker DataMart 28. Business plans 20 can be for a single borrower, borrower alliances, and portfolio segments.

[0032] The business plans 20 are usually created in a normalized format (i.e., a matrix format – with debtor group ID's in rows, and monthly expected payments in columns). The normalized format is converted to a de-normalized 36, or list-oriented, version of the business plan 20. The number of months between a starting month and each payment month – a Time Series ID - is assigned (i.e., monitoring may start in January, 2001, and payments made in May, 2001, June, 2001, or months 5 and 6, respectively) to each plan 20. De-normalization 36 occurs each time business plans 20 are uploaded.

[0033] On a monthly basis, debtors progress through a standardized series of asset milestones. Monitoring the transition of borrowers through these critical junctures provides indication of the asset management performance. The asset milestone 38 progress therefore is tracked and organized by asset ID. In addition, actual cash collections in each month are uploaded and assigned a Time Series ID. The cumulative cash collections 40 (Cume Cash Collections) are organized by SubAsset ID and by Asset ID in a table format. As cash payments may be tracked at a different level (e.g., by loan) than that of other database entities (e.g., asset milestones, data mining characteristics, business plans), a map associating these different levels (ID Maps 42) is updated and uploaded. Specifically, the ID Map 42 associates Asset ID and SubAsset ID to specific loans. Expected payments from business plans for each debtor group, for each time series ID is associated, or linked 44, with actual payments, aggregated from SubAsset ID to Asset ID (debtor group ID) by Time Series ID.

[0034] Appendix A contains database schematics (DS) that can be utilized in building one example embodiment of variance tracker DataMart 28. Specifically, DS 1 is a database schematic for the CFIDs (a.k.a., “Cash Flow ID's”), DS 2 is for payment data, DS 3 is for approved (i.e., accepted by investors) business plans, DS 4 is for large (i.e., borrowers with large balances) business plans, DS 5 is for buckets (i.e., portfolio segments) business plan, DS 6 is for business plan totals, DS 7 is for milestones, DS 8 is for CFIDs without

business plans, DS 9 is for variance tracking data, DS 10 is for variance tracking data, DS 10 is for subtype export data, and DS 11 is for subtype export data.

[0035] Once a DataMart 28 is created, then a variance tracker client 30 is utilized to generate a transition inventory matrix 46, which illustrates key portfolio statistics and variance calculations for any selected (drilled-down) segment of the portfolio, and by asset milestone one-month status changes. The matrix is generated by the personal computer using, for example, the Excel spreadsheet program, as described above. A transition inventory matrix can be created for any historical month, beginning with the first month of portfolio monitoring. Using the transition inventory matrix 46, sources and movements over time of borrowers, payments, and variances can be assessed 48. Such assessment 48 can be utilized to better identify asset management process improvements, resulting in an improved ability to manage strategic operations.

[0036] Figures [3 – 9]3 – 9F illustrate one example of creating DataMart 28 and constructing a transition inventory matrix 46. More particularly, Figure 3 illustrates normalization of a business plan 20. Specifically, from an initial plan matrix 50 which depicts accounts (rows) across plan months (columns), normalization creates a list-oriented format 52 which is useful for subsequent matching.

[0037] Planned payments are then coded as illustrated in Figure 4. Such coding refers to translating the contents of a time field 54 (in the example, a “Month”) into an index of time 56, namely, identify the number of months from a selected point in time to which the record pertains. For example, if the selected point in time is November, 2000 (i.e., November, 2000 = month index 1), then the month of January, 2001 corresponds to a month index of 3 as illustrated in Figure 4.

[0038] Actual payments 58 also are coded 60, as illustrated in Figure 5. The same coding methodology utilized to code the planned payments is utilized to code the actual payments.

[0039] Referring now to Figure 6, and for variance analysis of cumulative plan versus actual differences, from a specific point in time through a current month 62 (e.g., from November, 2000 through March, 2001), the user must specify the index of the time assessment (in the example, month index 5). By so specifying the month index 64, then a transition inventory matrix 46 can be created for assessment.

[0040] Once the month index 64 is specified, then as shown in Figure 7, matching and cumulative variance through the specified period of time can be determined. Cumulative (cume) variance 70 is the difference between cume plan 72 and cume actual 74 up through and including the time of assessment 76 (in the example, the 5th month index).

[0041] Referring to Figure 8, the cume variance 70 can be performed for any desired time of assessment 76. Assessments between two different time periods 80, 82 are used to create a transition inventory matrix 46, which illustrates how accounts move through a management system, and which accounts are producing the largest contribution to cume variance. In the example illustrated in Figure 8, accounts that were approved 84 and previously closed currently 86 are producing 28 units of cume variance. Accounts that were closed previously 88 and now delinquent 90 are also producing this amount of cume variance.

[0042] [Figure 9 illustrates]Figures 9A-F illustrate a transaction inventory matrix 46 representing an assessment of 3376 accounts. The matrix is created using, for example, the Excel spreadsheet program commercially available from Microsoft Corporation, Redmond, Washington. The spreadsheet is populated using the data stored in DataMart 28 and based on the time period selected by the analyst for assessment.

[0043] Typically, accounts will advance in management milestones from one month (or time of assessment) to the next. Bottlenecks can be identified by accumulation of variance. In the example shown in [Figure 9]Figures 9A-F, accounts which are 'prior -to-approval' 100 in both the current and previous periods (1487 accounts) have generated the greatest amount of plan versus actual variance (approximately -2MM currency units).

[0044] Using the pivot tables in the Excel program, an analyst can “drill down” using account characteristics that may be drivers of variance. More particularly, and in the example shown in [Figure 9]Figures 9A-F, in the upper left hand corner of the pivot tables, five variables 102 are listed. These variables 102 can be used to isolate problematic account segments. An analyst simply uses the ‘drop down’ boxes to select an account segment (for example, “Real Estate Secured” as an attribute of the characteristic “Collateral Type”). The pivot table is automatically updated to reflect the selected segment’s contribution to variance. Account segments can be rank-ordered in terms of their contribution.

[0045] Example user interfaces are described below in connection with Figures 10 – 13. Of course, many different formats and selections can be utilized for the user interface and the user interfaces illustrated below in Figures 10 - 13 are example user interfaces. Figure 10 is a screen shot of an example user interface. A date selection 110 (i.e., Today’s date is) points to a current date as a default. The date can be changed by selecting a drop down button. Once the drop down button is selected, a calendar 112, as shown in Figure 11, is displayed. A new date is selected by ‘double clicking’ on the desired date. Once the date is selected, the user then selects “Transistion Inventory with new data” 114.

[0046] As shown in Figure 12, a user can select “Transistion Inventory with existing data” 116, which results in display of a pivot table with the most recently accessed data. A user also can select “Transition Inventory with new data” 114, which results in display of a pivot table with newly generated data and the selected date. A user can also select “View data” 118, which results in display of data for which the pivot table is being displayed. A user can also select “View sub-type data” 120, which results in display of sub-type data. A user can further select “Import new files into the database” 122, which results in importing new data into the system using a user interface as shown in Figure 13.

[0047] As shown in Figure 13, the import new files user interface includes a browse selectino button so that a user can select a data file to import. Selecting the “Import Sub Asset” button 124 results in importing the sub-asset data from the data file. Selecting the import payments buttons 126 (in the example, shown as the “Import Silverlake Payments”

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button) results in importing the payment data. Selecting the Import Asset Milestone button 128 results in importing the asset milestone data. Selecting the "Back" button 130 results in returning processing to the main interface screen (e.g., the screen shown in Figure 10).

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "J. S. Beulick", written over a horizontal line.

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